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EXAMINER

HILLERY, NATHAN

ART UNIT	PAPER NUMBER
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2176

DATE MAILED: 11/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/631,884

Applicant(s)

PAUL ET AL.

Examiner

Nathan Hillery

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☒ Claim(s) 3,5,11,16,18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 August 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to communications: Change of Address filed on 7/6/02.
2. Claims 1 – 20 are pending in the case. Claims 1, 8, 12, and 14 are independent.

Specification

3. The disclosure is objected to because of the following informalities: incorrect terminology. The term “data type definition” should be “document type definition”.

Appropriate correction is required.

Claim Objections

4. Claims 3, 5, 11, 16, and 18 are objected to because of the following informalities: incorrect terminology. The term “data type definition” should be “document type definition”, which is consistent with how those with ordinary skill in the art would interpret the term as it is described in the specification. Further, the Office will assume for this examination that the term should be “document type definition” or “DTD”.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claim 4 is rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. TML is critical or essential to the practice of the invention, but not included in the claim(s). See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). It is essential because **according to one embodiment, a**

Telnet Markup Language (TML) is used to replicate the behavior of the database applications. When the device is a client that supports the Telnet protocol, an XSL document is applied to format the XML from the database into a Telnet markup language ("TML"). A telnet server then uses the TML to provide an interface to the Telnet device. (The last paragraph of Summary of the Invention).

Further there is no industry understanding or standard for such a reference to TML; therefore, the Office will broadly interpret claim 4 without consideration to the disclosure.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1 – 3, 5 – 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bayeh et al. (US006012098A) and Boag et al. (US006589291B1).

9. **Regarding independent claim 1**, Bayeh et al. teach that *the role of the data servlet is only to retrieve data from a database* (Column 8, lines 6 – 7) and that *before the data servlet can pass data to another servlet ... it must format that data ... in the preferred embodiment of the present invention, the data servlet formats its output as an XML data stream* (Column 8, lines 13 – 18), which provide for **converting the data ... into an XML output without regard to the device type of the particular client**. Bayeh et al. do not explicitly teach **identifying the client device type of the particular client, reading metadata that indicates how to convert said XML output to output**

for said client device type, ... converting the XML output for said client device type, and providing the output for said client device type to said particular client.

However Boag et al. do teach that ... *the selected style sheets are tailored to the client device ... this is done by inspecting the value of the UserAgent field of the HTTP request header with which the document was requested. This UserAgent value will identify the browser running on the client device. (Alternatively, protocols such as CC/PP may be available for querying the device/browser to determine its capabilities dynamically.)* (Column 10, lines 42 – 50), which provides for **identifying the client device type of the particular client.** In addition, Boag et al. also teach that *selecting one or more style sheets to transform a particular input document; determining whether a client device is capable of applying the selected style sheets; applying the selected style sheets at the client device when the determining has a positive result; and applying the selected style sheets at a server when the determining has a negative result* (Column 4, lines 29 - 36) and that *the input document may be encoded in Extensible Markup Language (XML). The style sheets may be encoded in a style sheet language such as Extensible Stylesheet Language (XSL) (Column 5, lines 8 – 11), which provide for reading metadata (XSL) that indicates how to convert said XML output to output for said client device type.* Further, it would be obvious to one with ordinary skill in the art at the time of the invention to know that Boag et al.'s invention is capable of ... **converting the XML output for said client device type**, since Boag et al. further teach that *XML is emerging as a powerful methodology for representing document content, due to its ability to store data in a self-defining, portable manner.*

*Style sheet languages such as XSL, along with their associated processors, are powerful tools for ... transforming documents encoded in one markup language into other markup languages such as HTML (HyperText Markup Language) or WML (Wireless Markup Language) (Column 2, lines 20 – 28). Also, Boag et al. teach that if the client device cannot apply style sheets, then they are applied at the server, and the resulting document is sent to the client; otherwise, the document may be sent to the client, where the client will perform the application process (Abstract, lines 7 – 11), which provides for **providing the output for said client device type to said particular client**. It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the invention of Bayeh et al. with that of Boag et al. because such a combination would allow *dynamic determination of the most appropriate location for applying style sheets* (first sentence of Boag et al.'s Abstract) *used by the rendering servlet for parsing the XML data stream* (last sentence of Bayeh et al.'s Abstract).*

10. **Regarding dependent claim 2**, Bayeh et al. do not explicitly teach **reading metadata includes reading an XSL style sheet ... and converting the output includes applying the XSL style sheet to said XML output**. However, Boag et al. do teach that *selecting one or more style sheets to transform a particular input document; determining whether a client device is capable of applying the selected style sheets; applying the selected style sheets at the client device when the determining has a positive result; and applying the selected style sheets at a server when the determining has a negative result* (Column 4, lines 29 - 36) and that *the input document may be encoded in Extensible Markup Language (XML). The style sheets may be encoded in a*

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*style sheet language such as Extensible Stylesheet Language (XSL) (Column 5, lines 8 – 11), which provide for **reading metadata includes reading an XSL style sheet** ...*

Further, it would be obvious to one with ordinary skill in the art at the time of the invention to know that Boag et al.'s invention provides for **converting the output includes applying the XSL style sheet to said XML output**, since Boag et al. further teach that *XML is emerging as a powerful methodology for representing document content, due to its ability to store data in a self-defining, portable manner. Style sheet languages such as XSL, along with their associated processors, are powerful tools for ... transforming documents encoded in one markup language into other markup languages such as HTML (HyperText Markup Language) or WML (Wireless Markup Language) (Column 2, lines 20 – 28).* It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the invention of Bayeh et al. with that of Boag et al. because such a combination would allow *dynamic determination of the most appropriate location for applying style sheets* (first sentence of Boag et al.'s Abstract) *used by the rendering servlet for parsing the XML data stream* (last sentence of Bayeh et al.'s Abstract).

11. **Regarding dependent claim 3**, the claim incorporates substantially similar subject matter as claim 5, and is rejected along the same rationale.

12. **Regarding dependent claim 5**, Bayeh et al. teach that *a parser reads a data stream, looking for predefined strings of characters that the parser recognizes, and which indicate to the parser what type of data is represented. In the preferred embodiment, the DTD used in the data servlet specified predefined strings that were*

used as tags ... and inserted into the XML data stream by the data servlet (Column 11, lines 53 – 60), which provide for **identifying a data type to which the data corresponds and identifying a data type definition associated with said data type**. Bayeh et al. further teach that *the data servlet formats the database information as an XML data stream. As previously discussed, a DTD is used in this formatting step. The DTD specifies how specific predefined "tags" are to be inserted into the XML data stream* (Column 11, lines 1 – 5), which provide for **converting the data to XML output based on said data type definition**.

13. **Regarding dependent claim 6**, Bayeh et al. teach that *in the preferred embodiment of the present invention, the data servlet formats its output as an Extensible Markup Language ("XML") data stream* (Column 8, lines 17 – 19) and that *according to the present invention, the XML data stream 97 is passed on to a "rendering servlet" 85. The function of the rendering servlet 85 is to render the data it receives into a presentation format* (Column 8, lines 30 – 35), which provide for **the XML output includes display instruction data indicating that said data is to be displayed in a first manner**.

14. **Regarding dependent claim 7**, Bayeh et al. do not explicitly teach **the step of converting the XML output includes the step of generating output for said client device type that causes said data to be displayed in a second manner that is different than said first manner when said client device type is not able to display said data in the first manner**. However, Boag et al. do teach that *the style sheet may contain dynamic parameter syntax for an element such as "<HEIGHT>", so that a*

scaling factor can be applied during the rendering process to scale the document for the height of the particular display on which it will be presented. The translation process will substitute the retrieved value for the dynamic parameter syntax (Column 12, lines 14 – 20), which provide for the step of converting the XML output includes the step of generating output for said client device type that causes said data to be displayed in a second manner that is different than said first manner when said client device type is not able to display said data in the first manner. It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the invention of Bayeh et al. with that of Boag et al. because such a combination would allow *dynamic determination of the most appropriate location for applying style sheets (first sentence of Boag et al.'s Abstract) used by the rendering servlet for parsing the XML data stream (last sentence of Bayeh et al.'s Abstract).*

15. **Regarding independent claim 8**, the claim incorporates substantially similar subject matter as claim 1, and is rejected along the same rationale.

16. **Regarding dependent claim 9**, the claim incorporates substantially similar subject matter as claim 2, and is rejected along the same rationale.

17. **Regarding dependent claim 10**, Bayeh et al. do not explicitly teach **the step of sending the second data to the client includes sending the data to a server to which the client is connected through a wireless connection, and then sending the data from the server to the client over said wireless connection.** However, Boag et al., in Figure 2, teach the capability of **the step of sending the second data to the client includes sending the data to a server to which the client is connected**

through a wireless connection, and then sending the data from the server to the client over said wireless connection. It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the invention of Bayeh et al. with that of Boag et al. because such a combination would allow *dynamic determination of the most appropriate location for applying style sheets* (first sentence of Boag et al.'s Abstract) *used by the rendering servlet for parsing the XML data stream* (last sentence of Bayeh et al.'s Abstract).

18. **Regarding dependent claim 11**, the claim incorporates substantially similar subject matter as claim 5, and is rejected along the same rationale.

19. **Regarding independent claim 12**, Bayeh et al. teach, in Figure 4, **a database system (88') and a database application operatively coupled to said database system (82')**. . Bayeh et al. also teach that *the role of the data servlet is only to retrieve data from a database 88': it does no presentation formatting of that retrieved data. The data servlet 83 receives the search request 80', queries a database 88' using database query statements 86' appropriate to the particular database, and receives the query results 90'. At that point, the data retrieval function of the data servlet 83 is complete. Before the data servlet 83 can pass data to another servlet for further processing, it must format that data in a manner that allows the next servlet to read and correctly interpret the data. In the preferred embodiment of the present invention, the data servlet formats its output as an Extensible Markup Language ("XML") data stream* (Column 8, lines 6 – 18), which provides for **said database application including application logic ... and an XML processor ...** . Bayeh et al. do not explicitly provide

for **an XSL processor** However, it would be obvious to one with ordinary skill in the art at the time of the invention to know that Boag et al.'s invention provides for **an XSL processor**..., since Boag et al. further teach that *XML is emerging as a powerful methodology for representing document content, due to its ability to store data in a self-defining, portable manner. Style sheet languages such as XSL, along with their associated processors, are powerful tools for ... transforming documents encoded in one markup language into other markup languages such as HTML (HyperText Markup Language) or WML (Wireless Markup Language)* (Column 2, lines 20 – 28). It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the invention of Bayeh et al. with that of Boag et al. because such a combination would allow *dynamic determination of the most appropriate location for applying style sheets* (first sentence of Boag et al.'s Abstract) *used by the rendering servlet for parsing the XML data stream* (last sentence of Bayeh et al.'s Abstract).

20. **Regarding dependent claim 13**, Bayeh et al. do not explicitly teach **a plurality of servers operatively coupled to said database application, said plurality of servers including at least a first server ... , a plurality of clients including a first client that interacts with said database application** However, Boag et al. teach that *FIG. 2 illustrates a data processing network 40 in which the present invention may be practiced. The data processing network 40 may include a plurality of individual networks, such as wireless network 42 and network 44, each of which may include a plurality of individual workstations 10. Additionally, as those skilled in the art will appreciate, one or more LANs may be included (not shown), where a LAN may*

*comprise a plurality of intelligent workstations coupled to a host processor. Still referring to FIG. 2, the networks 42 and 44 may also include mainframe computers or servers, such as a gateway computer 46 or application server 47 (which may access a data repository 48). A gateway computer 46 serves as a point of entry into each network 44. The gateway 46 may be preferably coupled to another network 42 by means of a communications link 50a. The gateway 46 may also be directly coupled to one or more workstations 10 using a communications link 50b, 50c (Column 5, lines 63 – 67 and Column 6, lines 5 – 13), which provides for a plurality of servers operatively coupled to said database application, said plurality of servers including at least a first server ... , a plurality of clients including a first client that interacts with said database application It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the invention of Bayeh et al. with that of Boag et al. because such a combination would allow *dynamic determination of the most appropriate location for applying style sheets* (first sentence of Boag et al.'s Abstract) *used by the rendering servlet for parsing the XML data stream* (last sentence of Bayeh et al.'s Abstract).*

21. **Regarding independent claim 14**, the claim incorporates substantially similar subject matter as claim 1, and is rejected along the same rationale.

22. **Regarding dependent claim 15**, the claim incorporates substantially similar subject matter as claim 2, and is rejected along the same rationale.

23. **Regarding dependent claim 16**, the claim incorporates substantially similar subject matter as claim 3, and is rejected along the same rationale.

24. **Regarding dependent claim 17**, the claim incorporates substantially similar subject matter as claim 4, and is rejected along the same rationale.

25. **Regarding dependent claim 18**, the claim incorporates substantially similar subject matter as claim 5, and is rejected along the same rationale.

26. **Regarding dependent claim 19**, the claim incorporates substantially similar subject matter as claim 6, and is rejected along the same rationale.

27. **Regarding dependent claim 20**, the claim incorporates substantially similar subject matter as claim 7, and is rejected along the same rationale.

28. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boag et al. (US006589291B1) and Bayeh et al. (US006012098A) as applied to claim 1 above, and further in view of Siyan (NetWare TCP/IP and NFS).

29. **Regarding dependent claim 4**, neither Bayeh et al. nor Boag et al. explicitly teach **the particular client is a Telnet client, the Telnet client communicates with a Telnet server to request data from said database application or providing said output ... includes the steps of sending the output to said Telnet server and said Telnet server providing said output to said Telnet client**. However, Siyan teaches that to support a TELNET session, you must have a TELNET client component running at the user's workstation and a TELNET server running at the remote host. A TCP/IP session is setup between the TELNET client and the TELNET server. As the user types the keyboard commands, the characters are received by the TELNET server ... (page 94, second paragraph block), which provides for **the particular client is a Telnet client, the Telnet client communicates with a Telnet server to request data from**

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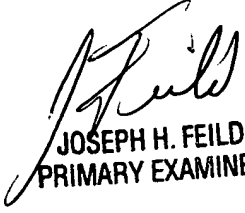
said database application (page 103, Figure 2.17), and that the results of the commands are sent by the TELNET server to the TELNET client. The TELNET client displays the results received from the TELNET server on the user workstation's display unit (page 94, last paragraph block), which provides for **providing said output ... includes the steps of sending the output to said Telnet server and said Telnet server providing said output to said Telnet client**. It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the teachings of Siyan with the combined inventions of Boag et al. and Bayeh et al. because those skilled in the art know that *frequently, the term TCP/IP is used to refer to a group of protocols related to the TCP and IP protocols such as ... Terminal Emulation Protocol (TELNET)* (Siyan, page 11, last sentence), since the combined invention utilizes (TCP/IP) (Boag et al., Figure 2).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Hillery whose telephone number is (703) 305-4502. The examiner can normally be reached on M - F, 8:30a.m. - 5:00p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph H. Feild can be reached on (703) 305-9792. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.


JOSEPH H. FEILD
PRIMARY EXAMINER

NH